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EXAMINER	
TRAN, DOUGLAS Q	

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/707,765	SOEDA ET AL.	
	Examiner	Art Unit	
	Douglas Q. Tran	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-11 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 08 November 2000 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3,4.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2. Claim 6 objected to because of the following informalities: from line 5 of claim 6: "temperature" should be changed to "humidity" because that limitation is described from lines 2-4 of claim 6. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Banton (US Patent No. 6,048,117).

As to claim 1, Banton teaches an image outputting system (fig. 1), comprising:

an image outputting apparatus (i.e., a multi-function device 15 in fig. 1) comprising:

a reading device (i.e., a scanner 20 in fig. 1) which reads an image (the scanner 20 for reading the original image);

a printing device (i.e., a printer 25 in fig. 1) which prints the image (the printer 25 for printing the original image);

a network connecting device (i.e., a LAN Port 40 in fig. 1) connectable to an external device (i.e., a calibration server 80 in fig. 1) via a network (10 in fig. 1; col. 3, lines 24-25); and

a correcting device (i.e., a controller 35 in fig. 1) which corrects printing color tone based on printing color correcting information (i.e., the color correction table) received via the network (col. 3, lines 36-38: a calibration server 80 is a device configured to perform calibration based on received color patch test patterns from the test pattern 100 which is generated by the multi-functional device 15 "col. 3, lines 45-50". Col. 4, lines 13- 46 describes that the calibration server 80 for processing the calibration print 100, and generating the color correction table "col. 4, lines 34-39" which is transmitted back to the correct printing device such as the multi-function device 15. Thus, the controller 35 "fig. 1" of the multi-functional device 15 can applied to the color correction table for correcting printing color tone.

It is noted that the color correction table, which would be considered as the printing color correcting information, is applied for correcting the printing color tone at the multi-function device 15 "fig. 1"; and the controller 35 "fig. 1", which controls the multi-functional device 15, would be considered as the correcting device for correcting printing color tone based on the color correction table provided by the calibration server 80); and

a network server (i.e., a calibration server 80 in fig. 1) connected to the network for sending the printing color correcting information (i.e., the color correction table) to the image outputting apparatus via the network (col. 4, lines 13- 46 describes that the calibration server 80 for receiving and processing the calibration print 100 from the multi-functional device 15 "fig. 1", and generating the color correction table "col. 4, lines 34-39" which is transmitted to the correct printing device such as the multi-function device 15).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banton (US Patent No. 6,048,117), in view of claims 1, in combination with Furuya (US Patent No. 6,297,873 B1).

As to claim 2, Banton discloses every feature discussed in claim 1.

Although Banton teaches the controller of the multi-function device 15 for correcting the printing color by receiving the updated information of the color correction table from the calibration server 80 (col. 4, lines 34-46). The color correction table that is created on the basis of the information of the test pattern 100 from the multi-functional device "col. 3, lines 45-50" including the environment information such as printing device type, device status, the type of media "col. 3, lines 54-66", Banton does not teach the image outputting apparatus comprising a

temperature measuring device which measures temperature in proximity to the printing device; and the correcting device corrects printing color based on the measured temperature.

Furuya, in the same field of endeavor "printing color processing ", teaches the image outputting apparatus (10 in fig. 1) further comprises a temperature measuring device (i.e., a temperature sensor 82 in fig. 1) which measures temperature in proximity to the printing device (col. 9, lines 33-35); and the correcting device (i.e., the computing processing section 80 in fig. 4) corrects printing color based on the measured temperature (col. 10, lines 25-27 describes that the computing processing section 88 "fig. 4" for computing a correction value for calibration from environment information obtained by the temperature sensor 82 "fig. 4". Alternatively, with respect to col. 10, lines 35-37, the results computed is reflected a correction table, the image data is corrected on the basis of the correction table).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the print controller 15 of Banton for correcting the printing color based on the temperature measured by the temperature measuring device as taught by Furuya. The suggestion for modifying the print controller of Banton can be reasoned by one of ordinary skill in the art as set forth above by Furuya because the modified controller would increase the efficiency of the printing system by correcting the print color when the temperature of the printer change at the printing time. Such a modification would improve the image quality on the recording materials.

As to claim 3, Banton and Furuya disclose every feature discussed in claim 2. Banton further teaches that a calibration server 80 is a device configured to perform calibration based on received color patch test patterns (col. 3, lines 36-38) from the test pattern 100, which is

generated by the multi-functional device 15 (col. 3, lines 45-50). The calibration server 80 generates the color correction table (i.e., the printing color correcting information) based on a plurality of the status conditions of the multi-functional device 15, which is indicated within the test pattern 100 "col. 3, lines 49-67"; and then the calibration server sends the color correction table to the multi-functional device 15 (col. 4, lines 40-43).

Although Banton does not explicitly teach the calibration server receives more condition such as the measured temperature from the printer so that the color correction table (i.e., the printing color correcting information) is generated based on the received status of the measured temperature, the calibration server receives more conditions of the printer and the color correction table generated based on more conditions including the measured temperature information which would be obvious to the teaching of Banton because the measured temperature condition which would be among the status conditions of the print device, which is well known in the prior art and taught by Furuya in claim 2 above.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the color correction table of Banton to be generated based on the received conditions of the multi-function device including the measured temperature condition. The suggestion for modifying the color correction table of Banton can be reasoned by one of ordinary skill in the art because the modified color correction table would provide more efficient correction of the printing color at the multi-functional device.

As to claim 4, Banton discloses every feature discussed in claim 1.

However, Banton does not teach the image outputting apparatus further comprises a temperature measuring device which measures temperature in proximity to the printing device; and the correcting device corrects printing color based on a history of the measured temperature.

Furuya, in the same field of endeavor "printing color processing ", teaches the image outputting apparatus (10 in fig. 1) further comprises a temperature measuring device (i.e., a temperature sensor 82 in fig. 1) which measures temperature in proximity to the printing device (col. 9, lines 33-35); and the correcting device (i.e., the computing processing section 80 in fig. 4) corrects printing color based on a history of the measured temperature (i.e., the previous calibration history information stored in the calibration history memory 84 "fig. 4") (col. 10, lines 25-31 describes that the computing processing section 88 "fig. 4" for computing a correction value for current calibration from a plurality of conditions of the printer including the current environment information "i.e., the measured temperature" obtained by the temperature sensor 82 "fig. 4" and the previous calibration history information which would inherently store the previous measured temperature).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the print controller 15 of Banton for correcting the printing color based on a history of the temperature measured by the temperature measuring device as taught by Furuya. The suggestion for modifying the print controller of Banton can be reasoned by one of ordinary skill in the art as set forth above by Furuya because the modified controller would increase the efficiency of the printing system by correcting the print color based on the history of the measured temperature of the printer change at the previous printing time. Such a modification would improve the image quality on the recording materials.

As to claim 5, Banton and Furuya disclose every feature discussed in claim 4.

Although Banton does not explicitly teach the calibration server receives more condition such as the measured temperature from the printer so that the color correction table (i.e., the printing color correcting information) is generated based on the received status of the measured temperature, the calibration server receives more conditions of the printer and the color correction table generated based on more conditions including the measured temperature information which would be obvious to the teaching of Banton because the measured temperature condition which would be among the status conditions of the print device, which is well known in the prior art and taught by Furuya in claim 4 above.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the color correction table of Banton to be generated based on the received conditions of the multi-function device including the measured temperature condition. The suggestion for modifying the color correction table of Banton can be reasoned by one of ordinary skill in the art because the modified color correction table would provide more efficient correction of the printing color at the multi-functional device.

As to claim 6, Banton discloses every feature discussed in claim 1.

However, Banton does not teach the image outputting apparatus comprising a humidity measuring device which measures humidity in proximity to the printing device; and the correcting device corrects printing color based on the measured humidity.

Furuya, in the same field of endeavor "printing color processing ", teaches the image outputting apparatus (10 in fig. 1) further comprises a humidity measuring device (i.e., a temperature sensor 82 in fig. 1) which measures humidity in proximity to the printing device

(col. 9, lines 39-44); and the correcting device (i.e., the computing processing section 80 in fig. 4) corrects printing color based on the measured humidity (col. 10, lines 25-27 describes that the computing processing section 88 "fig. 4" for computing a correction value for calibration from environment information "i.e., the measured temperature and humidity" obtained by the temperature sensor 82 "fig. 4").

As to claim 7, Banton and Furuya disclose every feature discussed in claim 6.

Although Banton does not explicitly teach the calibration server receives more condition such as the measured humidity from the printer so that the color correction table (i.e., the printing color correcting information) is generated based on the received status of the measured humidity, the calibration server receives more conditions of the printer and the color correction table generated based on more conditions including the measured humidity information which would be obvious to the teaching of Banton because the measured humidity condition which would be among the status conditions of the print device, which is well known in the prior art and taught by Furuya in claim 6 above.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the color correction table of Banton to be generated based on the received conditions of the multi-function device including the measured humidity condition. The suggestion for modifying the color correction table of Banton can be reasoned by one of ordinary skill in the art because the modified color correction table would provide more efficient correction of the printing color at the multi-functional device.

As to claim 8, Banton discloses every feature discussed in claim 1.

However, Banton does not teach the image outputting apparatus further comprises a humidity measuring device which measures humidity in proximity to the printing device; and the correcting device corrects printing color based on a history of the measured humidity.

Furuya, in the same field of endeavor "printing color processing ", teaches the image outputting apparatus (10 in fig. 1) further comprises a humidity measuring device (i.e., a temperature sensor 82 in fig. 1) which measures humidity in proximity to the printing device (col. 9, lines 39-44); and the correcting device (i.e., the computing processing section 80 in fig. 4) corrects printing color based on a history of the measured humidity (i.e., the previous calibration history information stored in the calibration history memory 84 "fig. 4") (col. 10, lines 25-31 describes that the computing processing section 88 "fig. 4" for computing a correction value for current calibration from a plurality of conditions of the printer including the current environment information "i.e., the measured humidity" obtained by the temperature sensor 82 "fig. 4" and the previous calibration history information which would inherently store the previous measured humidity).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the print controller 15 of Banton for correcting the printing color based on a history of the measured humidity as taught by Furuya. The suggestion for modifying the print controller of Banton can be reasoned by one of ordinary skill in the art as set forth above by Furuya because the modified controller would increase the efficiency of the printing system by correcting the print color based on the history of the measured humidity of the printer change at the previous printing time. Such a modification would improve the image quality on the recording materials.

As to claim 9, Banton and Furuya disclose every feature discussed in claim 8.

Although Banton does not explicitly teach the calibration server receives more condition such as the measured humidity from the printer so that the color correction table (i.e., the printing color correcting information) is generated based on the received status of the measured humidity, the calibration server receives more conditions of the printer and the color correction table generated based on more conditions including the measured humidity information which would be obvious to the teaching of Banton because the measured humidity condition which would be among the status conditions of the print device, which is well known in the prior art and taught by Furuya in claim 8 above.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the color correction table of Banton to be generated based on the received conditions of the multi-function device including the measured humidity condition. The suggestion for modifying the color correction table of Banton can be reasoned by one of ordinary skill in the art because the modified color correction table would provide more efficient correction of the printing color at the multi-functional device.

As to claim 10, Banton discloses every feature discussed in claim 1.

However, Banton does not teach the image outputting apparatus further comprising the image outputting apparatus comprising a printing paper to be fed to the printing device; and a paper information detecting device which reads printing characteristics information of the printing paper; and the correcting device corrects printing color based on the read printing characteristics information.

Furuya, in the same field of endeavor "printing color processing ", teaches the image outputting apparatus comprising a printing paper to be fed to the printing device; and a paper information detecting device (i.e., the identification sensor 67 or 68 in fig. 4) which reads printing characteristics information of the printing paper (i.e., the photographic printing paper type); and the correcting device (i.e., the computing processing section 88 in fig. 4) corrects printing color based on the printing characteristics information (col. 10, lines 25-31 describes that the computing processing section 88 "fig. 4" for computing a correction value for calibration from a plurality of conditions of the printer including the type of the photographic printing paper obtained by the identification sensor 67 or 68 "fig. 4". It is noted that the identification sensor 67 or 68 obtains the type of printing paper when the printing paper is inherently fed to the printing device).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the print controller 15 of Banton for correcting the printing color based on the type of the printing paper obtained by the printing paper sensor as taught by Furuya. The suggestion for modifying the print controller of Banton can be reasoned by one of ordinary skill in the art as set forth above by Furuya because the modified controller would increase the efficiency of the printing system by correcting the print color based on the printing paper type of the printer change at the printing time. Such a modification would improve the image quality on the recording materials.

As to claim 11, Banton and Furuya disclose every feature discussed in claim 10, and Banton further teaches the image outputting apparatus (i.e., a multi-function device 15 in fig. 1) sends to the network server (i.e., the calibration server 80 in fig. 1) via the network data of the

printing characteristics information of the printing paper (i.e., the type of the media, col. 3, line 66 to col. 4, line 3), and the network server sends the printing color correcting information (i.e., the color correction table) to the image outputting apparatus based on the received data (col.4, lines 4-5 and 34-43).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas Q. Tran whose telephone number is (703) 305-4857 or E-mail address is Douglas.tran@uspto.gov.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Douglas Q. Tran
Apr. 30, 2004